

# Environmental Management Congressional Caucus



**Keeping Our  
Commitments:**  
*Proven to Deliver*

***Safe for the Workers, Protective of the Environment, and Respectful of the Taxpayer***

February 17, 2005

# EM Vision

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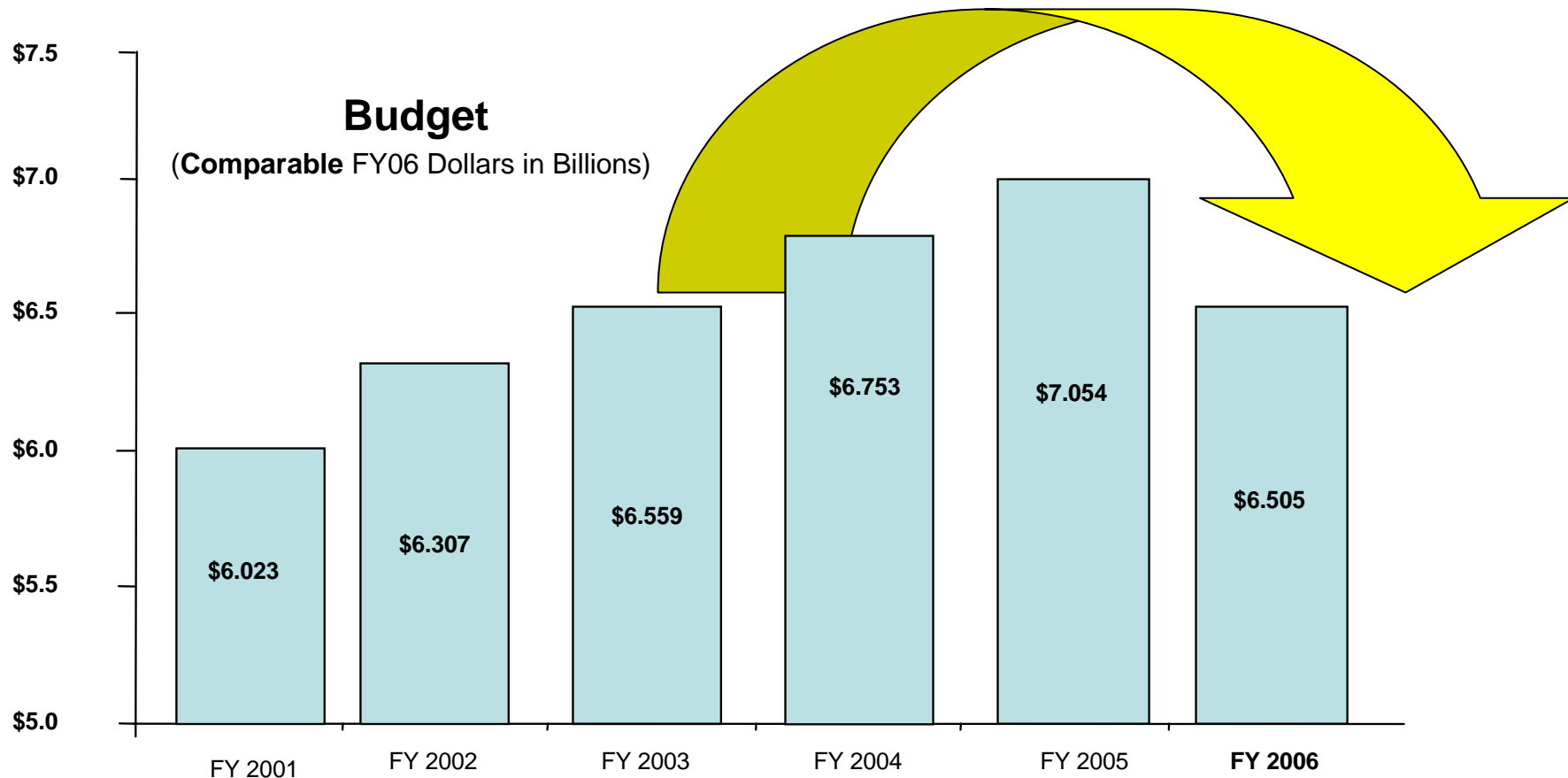
***Deliver real risk reduction and environmental cleanup that is:***

- Safe for the Workers,***
- Protective of the Environment, and***
- Respectful of the Taxpayer***

***Deliver cleanup that this country expects and deserves***

# On Course to Meet Our Objectives

*The investments have resulted in accelerated risk reduction, site closures, and a payoff for all Americans.*



***Safe for the Workers, Protective of the Environment, and Respectful of the Taxpayer***

# FY 2006 – Continuing to Deliver Results

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## **Rocky Flats:**

2001: GAO reported that Rocky Flats had little chance of closing as scheduled by end of 2006.

Today: On track to close ahead of schedule

2006 Plan: Complete Rocky Flats cleanup ahead of schedule

## **Ohio: Mound, Fernald, and Columbus**

2001: Lost focus on closure, completion not expected until 2008 to 2010

Today: On track to close in 2006

2006 Plan: Complete Fernald, Mound, and Columbus cleanup

# FY 2006 – Continuing to Deliver Results

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## **Hanford (Richland and River Protection):**

2001: Spent nuclear fuel in water-filled basins, years worth of radioactive liquid waste in underground single-shell tanks, radioactive liquid tank waste treatment plant path forward uncertain

Today: All spent fuel removed from basins, all pumpable liquid waste removed from single shell tanks, reducing risk to the Columbia River; plutonium & residue stabilization mission complete, single shell tanks being emptied

2006 Plan: Remove sludge from K-Basins; complete H-Reactor cocooning; complete sodium and spent fuel removal from FFTF; continue Plutonium Finishing Plant D&D; initial supplemental treatment (bulk vitrification) of low-activity tank waste; complete construction of the Integrated Disposal Facility

# FY 2006 – Continuing to Deliver Results

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## Savannah River:

2001: F-Canyon operational, plutonium stabilization not started, not shipping transuranic (TRU) waste to WIPP

Today: F-Canyon being decommissioned, plutonium stabilization and residue stabilization completed, shipped 2,000 meters/year TRU waste to WIPP

2006 Plan: Package 250 containers through Defense Waste Processing Facility; start construction of the Salt Waste Processing Facility; complete FB-Line de-inventory and F-Canyon deactivation

# FY 2006 – Continuing to Deliver Results

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## Idaho

2001: Spent nuclear fuel stored in several water filled basins across site, massive decaying infrastructure

Today: All spent fuel dry-stored or consolidated into most robust storage basins, water removed from several basins, reducing risks to the underlying Snake River aquifer. Over a quarter-million square feet of facility infrastructure safely removed

2006 Plan: Begin Sodium Bearing Waste Treatment Plant design and permitting; close one waste tank; complete Pit 4 transuranic waste retrieval, continue D&D, empty 651 nuclear material storage vault

# FY 2006 – Continuing to Deliver Results

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## Oak Ridge:

2001: Major source terms in Melton Valley adjacent to the Clinch River watershed unremediated; major inactive uranium enrichment buildings and contaminated equipment in place

Today: Melton Valley source terms being remediated; K-29/31/33 Buildings decontaminated and decommissioned and all equipment removed

2006 Plan: Melton Valley remediation completed; all remaining depleted uranium cylinders shipped off-site; Molten Salt Reactor Experiment de-fueling stabilization completed

# FY 2006 – Continuing to Deliver Results

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## Portsmouth and Paducah:

2001: Contaminated scrap metal piles exposed to the elements at both sites; exposed waste material and equipment storage areas (DOE Materials Storage Areas or DMSAs) at Pad; tens of thousands of depleted uranium cylinders stored outside at both sites with no disposition

Today: More than 15,000 tons of scrap metal disposed; 14 of 17 outside DMSAs emptied; construction of DUF6 plants begun

2006 Plan: Transition from cold standby to final shutdown and D&D at Portsmouth; begin processing highly enriched uranium from Portsmouth at Nuclear Fuel Services; complete disposal of all outside waste storage areas (DMSAs) at Paducah; complete DUF6 administration buildings and warehouses at both sites

# FY 2006 – Continuing to Deliver Results

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## Waste Isolation Pilot Plant

2001: Disposed of 2,600 cubic meters of TRU waste received from 4 sites in 394 shipments; no small generator sites had characterization capability

Today: Disposed of more than 26,000 cubic meters TRU waste from 9 sites in 3,300 shipments; six sites provided with mobile characterization capability

2006 Plan: Start disposal of remote-handle TRU waste and dispose of cumulatively more than 40,000 cubic meters of TRU waste in 5,000 shipments

# **FY 2006 – Continuing to Deliver Results**

## **Security**

2001: Fourteen Material Access Areas (MAA's)  
storing Special Nuclear Material at 5 sites

Today: Reduced number of storage areas by  
half

2006 Plan: Two additional storage areas  
closing between now and 2006

# FY 2006 – Continuing to Deliver Results

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## Focus Sites:

2001: Most sites had no clear strategy or focus; soil and groundwater contamination; legacy waste stored on-site

Today: Focused strategy for small sites; soil and water active remediation completed at Laboratory for Energy-Related Health Research and Brookhaven in 2005; legacy waste removed from Argonne, Livermore, Brookhaven

2006 Plan: Active remediation completed at Stanford Linear Accelerator Center, Lawrence Berkeley National Laboratory, Columbus, Ashtabula, and three sites transferred to NNSA – Kansas City Plant, Lawrence Livermore National Laboratory Livermore Site, and Sandia National Laboratory

# **Results Across the DOE Complex**

- *Every site safer and more secure*
- *Worker safety has improved but our goal is to eliminate accidents and injuries*
- *Urgent environmental risk has been reduced or eliminated*
- *Positive and measurable return to the community and taxpayer*
- *Program set up to deliver more risk reduction and cleanup going forward*

**We will continue to improve  
safety and performance**

*Safe for the Workers, Protective of the Environment, and Respectful of the Taxpayer*

# Results Across the DOE Complex

## EM Corporate Performance Measures <sup>a</sup>

Performance Measure	Units	Projected Cumulative Complete Through FY 2005 (%)	Projected Completed Through FY 2006	Lifecycle Total
Pu packaged for long-term disposition	# Cont.	6,345 (>100%)	Completed	5,850
Pu/U residues packaged for disposition	kg Bulk	107,775 (100%)	Completed	107,782
eU packaged for disposition	# Cont.	4,117 (49%)	6,332	8,428
DU & U packaged for disposition	MT	9,057 (1%)	9,243	685,161
MAAs eliminated	# MAA's	8 (57%)	9	14
SNF packaged for disposition	MTHM	2,125 (88%)	2,127	2,420
TRU disposed	m3	30,546 (22%)	40,731	140,905
LL/LLMW disposed	m3	722,264 (62%)	752,071	1,161,773
Liquid Waste eliminated	gallons (1000s)	0 (0%)	888	88,000
Liquid Waste Tanks closed	# Tanks	2 (1%)	3	241
HLW packaged for disposition	# Cont.	2,237 (12%)	2,487	18,735
Remediation Complete	# Rel. Sites	4,467 (58%)	4,732	7,666
Nuclear Facility Completions	# Facs.	48 (9%)	66	511
Radioactive Facility Completions	# Facs.	245 (30%)	279	821
Industrial Facility Completions	# Facs.	1,061 (34%)	1,158	3,098
Geographic Sites eliminated	# Sites	79 (74%)	86	107

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# Results Across the DOE Complex

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- **Plutonium Packaged: COMPLETED.** Packaged all plutonium and plutonium residues.
- **Package Plutonium Residues: COMPLETED**
- **Reduction in material access areas:** Eliminated one half of the areas.
- **High Level Waste Canisters:** Produced 1,700 canisters of immobilized high level waste (over 1,000 since FY 2000)
- **Facility completions:** Decontaminated/decommissioned and demolished over 1,190 facilities including 250,000 square feet at ID.
- **Transuranic Waste Disposition:** Since its opening in 1999, EM has safely disposed of over 20,000 cubic meters of TRU waste.
- **Low-Level/Mixed Waste Disposal:** Disposed of over 659,000 cubic meters of low-level and mixed low-level waste.

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# **We Must Stay True to the Strategy**

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**Continue to Improve Safety and Performance**

**Seek New Opportunities to Reduce Risk and  
Complete Cleanup**

**Address our Challenges**

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